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OFFICE OF
AIR, WASTE AND TOXICS

NOV 24 2010

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Re: Grays Harbor Energy (GHE)
Draft PSD/NOC Permit
EFSEC 2010/01 (Units 3 and 4)

The proposed draft permit would authorize the expansion of the Greys Harbor Energy (GHE) through the construction and operation of two additional, new combined cycle turbines (Units 3 and 4) including two heat recovery steam generators containing supplementary duct burners at the source. GHE currently operates two other combined cycle turbines (Units 1 and 2) at the site. The United States Environmental Protection Agency (USEPA) has reviewed the proposed draft permit and other relevant information, and has identified a number of concerns. These concerns must be addressed and the draft permit revised before the issuance of the Prevention of Significant Deterioration (PSD) and Notice of Construction (NOC) permit for this source.

These concerns are as follows and the attached draft permit has been annotated to reflect how these concerns may be addressed:

1. The air quality analyses (NAAQS, increment, and visibility) required by the PSD program at 40 CFR Part 52.21 relies on the combination of stack parameters, stack velocity, controls devices, heat input rate, and emission limitations (including startup and shutdown) associated with the specific emission units. Therefore, certain information must be included in the permit to assure compliance with these analyses. For example, the specific emission units, heat input rates, stack heights, and stack diameters, at a minimum, need to be added to assure compliance the air quality analyses (see attached annotations to Approval Conditions 1 and 2). In addition, a 24-hour NOx limit representing the worst-case emissions from startup and normal operations of the combined cycle turbines and supplementary duct burners in a 24-hour period needs to be added to ensure compliance with the visibility air quality analysis (see annotations to Approval Condition 3). (For further discussion about the reasons for these changes in the permit, see the 1990 NSR Workshop Manual, C.44 and C.45 as it relates to modeling parameters, and pages H.3, H.4, and H.5 as it relates to technical specifications; and EPA's Order to Alliant Energy - WPL Edgewater Generating Station, dated August 17, 2010, pages 3-5)

2. The draft permit does not provide BACT limits representing the maximum degree of emissions reduction achievable on a continuous basis for all modes of operation. The application indicates four modes of operation 1) 100 percent combustion turbine load with duct burners; 2) 100 percent combustion turbine load without duct burners; 3) 60 percent combustion turbine load

without duct burners; and 4) Combustion turbine startup and shutdown. BACT limits must be written to ensure compliance at any operating capacity and are therefore written in a concentration form (i.e., maximum mass/unit of process) such pounds per million Btu of heat input (lbs/MMBtu), parts per million (ppm), or grains per dry standard cubic foot (g/dscf). Where these concentrations do not represent the maximum degree of reduction achievable for a particular mode of operation then another BACT limit must be determined. For example, the application indicates that a 1 ppm VOC limit is achievable at 100% combustion turbine load with and without duct burners. However the application indicates that a 3 ppm VOC limit is achievable at the 60% load without duct burners. So, if the facility is intending to operate the turbines at the 60% load without duct burners then a 3 ppm VOC BACT limit should be added to the permit (see attached annotations to Approval Conditions 3 and 4). (for further discussion, see 1990 draft NSR Workshop Manual, page H.5, "All limits also must be indicated precisely for each emissions point or operation." see also page H.10, Table H.2. Items 6, 7, and 8). With respect to national consistency, including BACT limits for all planned modes of operation will also ensure consistency with other combined cycle permits issued by other EPA regions and state permitting authorities.

3. BACT limits can be no less than those limits established in the applicable Part 60, 61, and 63 standards. Part 60 Subpart KKKK requires compliance with a NOx 15ppm standard over a 30-day average including startup and shutdown emissions. While the permit includes a 2 ppm NOx standard during normal operation, this limit is relieved during cold startups and an alternative limit is applied which is greater than the 15 ppm limit. As a result, this NSPS limit must be included to account for this particular mode of operation over a 30-day period.

4. BACT limits must also be specified for all emission units unless measurement of such limits is infeasible. BACT limits for each regulated pollutant must be specified for the auxiliary boiler, emergency generator, and emergency firewater pump. To the extent the NSPS Subpart IIII emission limits represent BACT for the emergency diesel generator and firewater pump those limits need to be included in the permit and not incorporated by reference (see attached annotations for Approval Conditions 4, 5, 6, and 7).

5. As mentioned above, BACT limits are applicable on a continuous basis. Accordingly, the requirement for "routine" compliance throughout the permit needs to be changed to establish "continuous" compliance with the BACT emission limitations. (see 1990 draft NSR Workshop Manual, page B.56, "emission limits must be met on a continual basis at all levels of operations (e.g., limits written in lb/MMBtu or percent reduction achieved), demonstrate protection of short term ambient standards (e.g., limits written in lb/hour) and be enforceable as a practical matter (e.g., contain appropriate averaging times, compliance verification procedures, and recordkeeping requirements)").

6. The permit is a stand-alone document and accordingly needs to specify adequate monitoring, recordkeeping, and reporting to ensure continuous compliance with the applicable PSD requirements, and cannot reference potential conditions included as part of the Operation and Maintenance Manual. Therefore, Approval Condition 14 needs to be revised to specify the necessary monitoring and recordkeeping associated with all the emission units. (for further discussion see 1990 draft NSR Workshop Manual, page H.1. "The permit must be a 'stand-alone'

document...specifies methods for determining compliance and/or excess emissions, including reporting and recordkeeping requirements".)

7. Startup and shutdown limits need revising to ensure that the maximum degree of emission reduction achievable is established based on currently available information in the permit. It should be noted that a top-down BACT analysis was not performed for the startup limits. For example, the turbine manufacturer, General Electric, indicates that the GE F7A turbines are offered with a improved startup process that reduces by orders of magnitude the startup time and associated emissions. (for further discussion concerning the GE's improved startup process, see http://www.ge-7fa.com/businesses/ge-7fa/en/7FA-tech-specs.html)

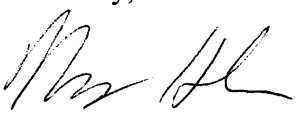
8. In approval condition 8, Annual emission must be specified for the total facility and not just the turbines.

9. The excess emissions requirement in Approval Condition 18.1 shall be revised to include the Title IV, Acid Rain program reporting requirements and not incorporated by reference.

10. Some of the general conditions in the permit need to be revised. For example, use of the word "inconsistent" in Approval Condition 21 must be changed to "not in accordance" to ensure the same meaning as that of 52.21(r)(1), where it states "not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct...shall be subject to appropriate enforcement action." Another example includes Condition 23 where "EPA" needs to be added as part of the approval process for extending the 18-month period.

We look forward to working with EFSEC to ensure that a permit meeting the requirements of the PSD regulations is issued. If we can answer any questions regarding this letter, please contact me at (206) 553-6908 or Bryan Holtrop at (206) 553-4473.

Sincerely,



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